

# KNOWLEDGE

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OFFICIAL SAFETY INFORMATION OF THE U.S. ARMY

## PUSHING THE LIMIT



ARMY CENTER

## FROM THE DASAF Taming the Dog Days

The fact that the fiscal year coincides with the end of summer can be a cruel coincidence for those of us in safety. There's no buffer zone that allows us to bounce back from a bad fourth quarter, which traditionally is our Army's worst time of year for accidents. Slow and steady gains made throughout the year can be diminished quickly by just one or two bad months, and that could kill motivation to keep working toward safety goals. But thus far in fiscal 2013, it looks like we won't have that problem: With about two months left to go, accidental fatalities are still 20 percent lower than this time last year. That decline has held steady for several months now, but to keep it going, we'll have to stay on top of our game through August and September.

Here are some areas to highlight with your Soldiers during safety briefings and end-of-summer stand-downs.

**PMV.** This year's substantial drop in private motor vehicle fatalities is one of the Army's best news stories in years. As of July 23, fatal accidents in sedans were down 33 percent and pedestrian deaths by half. Motorcycle fatalities had dropped 30 percent from the same time frame last year. These successes run counter to the fears many of us had during the early days of the drawdown in Iraq and the continuing de-escalation of operations in Afghanistan, which together have contributed to more Soldiers at home station than any time in the previous decade-plus. They truly are reflective of the commitment our leaders have to safety and our Soldiers to looking out for themselves and one another. Quite simply, our people made this happen!

There's never a good time to let down our guard, though, especially as Soldiers are eager to enjoy the limited time left before summer vacations are over and kids head back to school. "Get-there-itis" can be just as deadly an affliction as any terminal disease, and it's claimed far too many Soldiers on leave or pass through the years. The two or three minutes gained by excessive speeding are not worth the risk Soldiers and their Families face in a vehicle crash. The destination will always be there, but they may not be if they let the hurry take over. Proper planning and the right frame of mind are key to ensuring road trips begin and end safely and happily.

Unfortunately, we haven't seen a similar decline in fatal water accidents; using July 23 data as a baseline, drownings have doubled from fiscal 2012. This summer has been marked by unusually erratic weather, and recreational water spots have been affected. Rip currents along the coasts and lakes and rivers that are either above or below normal stage all pose hazards to boaters and swimmers. Soldiers should be aware of and respect present conditions, regardless of their plans. The water isn't going anywhere, but one impulsive decision can mean you aren't there to enjoy it.

**ATV.** There's always one accident category that catches us off guard every year, and this time it's PMV-other fatalities tied to all-terrain vehicles. Numbers are small — three off-duty deaths overall — but still worrying, considering last year's total was zero. Themes common to motorcycle accidents, including indiscipline and lack of personal protective equipment, have emerged in these accident investigations. While it's too early to call this a trend, it's definitely important to start talking to our Soldiers now about ATV safety, especially with autumn and hunting season approaching. We can go far by using the same approaches that have worked for motorcycles, but we have to open the conversation to make that happen.

You know best what's happening in your formations, but the above points should give you a good start for reaching your Soldiers during these critical next weeks. We're close to another record year for safety, perhaps the best we've ever had. But it's not about the number's you'll brief at the end of the year; everything we do is to keep the Soldiers standing in your formations today there for tomorrow and beyond.

Please use the resources at <https://safety.army.mil> and let me know what else you need to keep your Soldiers safe. We'll be rolling an updated website out during late fall to early winter, and I hope you'll find it more user-friendly than the existing site. I'm eager to hear your suggestions, so please send me your feedback and let us work for you. Also remember the deadline for training your Soldiers and civilian employees on new elements of the Globally Harmonized System is Dec. 1; don't let that target get lost as the summer rush turns into the holiday frenzy.



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Thank you all for what you do every day — you make safety happen and save lives in ways you'll never know!

**Army Safe Is Army Strong!**

**TIMOTHY J. EDENS**

Brigadier General, USA  
Director of Army Safety



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## PUSHING THE LIMITS

SGT. 1ST CLASS JOSEPH BJORNSTAD

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This is a typical “there-I-was” story, much like the ones I enjoy reading about in safety magazines. The only difference is I am the subject, and the following events (yes, that’s multiple events) happened to me. The lessons learned motivated me to change the way I think about my favorite hobby — motorcycle riding.

The following events occurred during a two-week cross-country motorcycle trip while I was on block leave before leaving for a deployment to Afghanistan. The trip took me from Fort Drum, N.Y., to Pensacola, Fla., and back. To ensure I stayed safe, I planned the 3,000-mile journey meticulously and completed my TRIPS assessment, which was command briefed and blessed.

Day 5 of my trip would have me on my cruiser from Columbus, Ga., to Newport News, Va., a 700-mile expedition with a 10½-hour ride time. I knew some riding days would be longer than others, but this one was especially lengthy. With fuel stops and planned breaks, the trip was scheduled for about 12½ hours. It would be a long ride day, but it was doable. The weather was looking good and my bike was properly maintained and prepared for the trip. I had also slept in a decent hotel and rested well, so I felt mentally and physically ready.

I left the hotel at 5:30 that morning to gas up and go. My plan was to avoid the awful rush-hour traffic in Atlanta, but I encountered my first snag while trying to pay for the fuel. That delay set me back an hour, which meant I was going to hit the traffic head on, something I wasn’t looking forward to doing. I was already an hour behind, so now my trip was going to take at least 13 hours.

Of course, traffic caused me another three-hour delay, so now the trip timer was up to 16 hours and I hadn’t even gotten out of the state of Georgia. Eventually, though, I got into a rhythm of quick breaks every hour to hydrate, fuel, grab a bite to eat and get back on the road.

By 2 p.m., I was about nine hours into the ride. I was making decent time and trying to maintain my hydration and spirits. Once I reached the Charlotte, N.C., area, though, I encountered more traffic. Since I was riding alone, I made sure to leave myself an “out” when in traffic. Also, my attention level was high and my head on a swivel because tractor-trailers were everywhere. When it came time to pass a vehicle, I did it with authority, which means I didn’t dilly-dally around. There were no slow passes since a driver may not have even noticed I’d come up behind them.

Then I got behind a tractor-trailer.

I was preparing my pass when it happened — a loud bang and then debris. The big-rig’s tire exploded right in front of me. Instinct told me to slow down, so I was hard on the brakes as rubber chunks seemed to come at me from everywhere. As I looked for my out, I realized it had evaporated with my speed, and I was now surrounded by cars. This made avoiding the rubber debris impossible.

Fortunately, I was riding with a full-face helmet, and my windshield and other personal protective equipment helped keep me safe. After taking several hits from large pieces of tire, a car let me out of my lane so I could finally pass the truck. By now, my heart was going a thousand beats a minute, so I headed for the next exit to take a break and assess any damage the bike or I took. After sitting and sipping on a highly caffeinated cold beverage, I’d calmed enough to get back on the road. With my anxiety high, I questioned the decision to make such a long ride. I continued for another hour and half and was just about to take another break for fuel and food when lightning struck again. Yes, another tractor-trailer had a blowout — this time when I was in the middle of passing the rig.

While the blowout occurred on the opposite side I was on, the damage had been done. My anxiety was now through the roof. I was genuinely scared. I thought I was going to die on a North Carolina road. I pulled off the road again to calm down, eat and relax. I also called my wife to talk, but I didn’t mention my close calls. I didn’t want to worry her further. I then called my designation friends to let them know I was having issues.



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While I ate, I contemplated my options. I could either ride another four hours to Newport News or grab a hotel and rest. I'd now been on the road for more than 12 hours and suffered two major events within the past two. "Get-there-itis" eventually won out, so I hopped back onto my bike and continued my trip. About five hours later, I finally reached my destination. All told, I had spent almost 18 hours on my motorcycle.

When I had time to reflect on my trip, I made several decisions that would affect future rides. I will never again try to travel more than 450 miles in one day. Also, my routes will mostly take me on smaller highways rather than interstates.

I didn't enjoy that ride day at all. I was very lucky, as a few of my choices could have proved fatal, especially the decision to press on to my designation. I want to impart to all riders that nothing is worth pushing the limits. Take time to get to your designation and, although it sounds cliché, arrive alive.



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## A TRAGIC FUNCTION CHECK

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*Author's note: The objective of this story is to stress weapons safety. The negligent discharge incident I discuss happened in my unit, and the circumstances involved contributed to the tragic loss of a Soldier.*

In 2008, I participated in Operation Enduring Freedom. Five of my units were concentrated in Regional Command-East and one battalion was located in southern Afghanistan, conducting combat operations near Kandahar. The threat, both inside and outside the wire, required Soldiers to have a magazine of ammunition in their weapon at all times.

The weapons status for M4 carbines and 9 mm pistols was AMBER, which means magazine with ammunition in the weapon, no ammunition chambered and weapon selector lever on safe. (The other weapon statuses are GREEN and RED. Weapon status GREEN means no magazine in the weapon and the weapon selector lever on safe. RED status means a loaded magazine in the weapon, ammunition loaded into the chamber and the weapon selector lever is on safe.)

Back at home station, Soldiers typically don't walk around with weapons in AMBER or RED status unless they are on a live-fire training range. Even then, restrictions apply when Soldiers can and can't have a magazine with ammunition in their weapon. Unfortunately, deployed Soldiers sometimes get complacent and forget they have a magazine with ammunition in their weapon. That mistake can have a disastrous outcome.

In one particular unit, a group of Soldiers completed their mission for the day, so the next order of business was weapons maintenance, which is imperative when conducting combat operations. A clean, functioning weapon ensures combat readiness. Cleaning and maintaining weapons is a deliberate process that requires planning, focus, skill and inspections.

The Soldiers gathered inside a tent (their living area) and disassembled their weapons on cots. As they cleaned their weapon's parts, they chatted about the day's events, reflected on home, snacked and watched movies.

An experienced Soldier at one end of the tent finished cleaning his weapon and reassembled it. The final step after assembling the M4 carbine is to conduct a function check to ensure it works properly. A function check for the M4 carbine is conducted without ammunition or the magazine. The function check will confirm the mechanical operation of the weapon through a series of selector lever movements and trigger squeezes. This is a skill level 1 task, and all Soldiers should be familiar with this procedure.

In this particular case, the skilled and experienced Soldier put a loaded magazine into the magazine well of the weapon and started his function check. (Right now, you should be yelling, "Stop!") This was not the correct way to perform a function check with an M4 carbine. The other Soldiers in the tent were unaware this tragedy was unfolding as weapons cleaning progressed, conversations continued and movie plots developed. The experienced Soldier attempted a function check with a loaded magazine in the weapon and discharged three rounds into a Soldier who was napping on a nearby cot. Tragically, the Soldier died from his wounds, and the Soldier that pulled the trigger was later punished according to the Uniform Code of Military Justice.

So what went wrong? The first step in weapon maintenance is to ensure the weapon is free and clear of all ammunition and therefore safe. For an M4 carbine, this can be accomplished by pointing the weapon into a clearing barrel or safe direction, removing the magazine, locking the bolt to the rear, visually inspecting the chamber and double-checking the magazine well (as well as showing your battle buddy) and returning the bolt to the forward position. The weapon will not discharge because the chamber was inspected and free and clear of ammunition. The weapon is now safe to disassemble and clean.

Weapons maintenance should be treated as a scheduled event and supervised. Watching movies or other distractions are contributing factors to inattentiveness and can cause accidents. Ammunition should be stored separately from the cleaning area but accessible when in a combat environment. Weapons should be treated as loaded at all times, and muzzle awareness is imperative. Keep fingers off triggers until time to engage a target. Always assume a weapon is loaded when receiving it from another person and inspect it to ensure it is clear of ammunition. Finally, never conduct a function check of an M4 with a magazine in the weapon! Engaged leaders can make a difference and prevent tragedies like this from happening again.



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## ROCKY MOUNTAIN HIGH

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As a Soldier, I have had the pleasure of attending some of the best schools the Army has to offer. These schools have given me the knowledge and experience required to become a successful and contributing member of the Army National Guard, in my civilian career as a firefighter/paramedic and with my family. One school recently taught me the valuable lesson of knowing my personal limitations regarding high-altitude flight.

America's "highest level" of flight training, the High-Altitude Army Aviation Training Site in Gypsum, Colo., is among the best at humbling even the most experienced aviator. HAATS offers students a unique training environment designed to dramatically increase individual and crew situational awareness. However, increasing situational awareness encompasses much more than being aware of the environment, terrain and radio traffic. It includes the ability to understand how the aeromedical factors of being at high altitude affect your emotions, judgment and thought processes.

My first experience in a hypoxic environment occurred while I was attending the flight medic course at the U.S. Army School of Aviation Medicine. During the course, students had the opportunity to train on the Army's only hypobaric altitude chamber. The training required each student to demonstrate thorough understanding of the effects of altitude on the human body; how to recognize hypoxia and utilize available oxygen systems.

If you haven't had the opportunity to attend this training, do so. The experience of being hypoxic and not knowing it will leave a lasting impression on you. During my training, I found it fascinating how my motor skills, thought process and attitude could become so degraded. Concluding the training, I believed I had the skills required to recognize a hypoxic state if ever I should encounter it again.

Many years later, I attended the HAATS UH-60 course when my medevac unit was preparing for deployment into Afghanistan. Among those attending the training with me as crewmembers were combat-tested Chief Warrant Officer 4 Charles "Chopper Chuck" Sharky and Sgt. Ben Russell. At the time of the training, I was a pilot with less than 300 hours total time, and Sharky was a pilot in command with thousands of flight hours. When instructors were assigned, our crew had the pleasure of drawing Col. Joel Best, the state aviation officer / regimental commander of the Colorado Army National Guard and former commander of the HAATS course. As you can imagine, I was a bit intimidated, but very glad to be instructed by someone with such vast knowledge and experience.

My second experience with hypoxic hypoxia occurred about midway through the course. It was a beautiful day in the Colorado Rockies, fresh snow, clear skies and a good 10- to 15-knot wind to help with training. As I climbed up into the cockpit, I noticed I had a bit of a headache starting, so I did as all good Soldiers do to cure any ailment we encounter — drink water — and we were on our way. Soon into the flight, I could feel myself becoming less focused on flying and more on looking at the mountains and beautiful scenery not found in the lonely flats of the Midwest. I quickly regained my composure and drank more water.

Soon after, Best demonstrated to me that our UH-60 Franken Hawk (an enhanced UH-60A) does actually hover at 14,000 feet out-of-ground effect. He then decided to train me on landing at one of the higher elevation ridges nearby. I found it incredibly difficult to maneuver the helicopter the way he was describing. Frustrated, I transferred the controls to have him demonstrate. The demonstration was complete, I had the controls, and I tried again with no luck. Like most type A, perfectionist pilots, I was getting really mad at myself. My body language was changing, my headache was getting worse and the tone in my voice must have been getting more impatient.

My crew chief was trying to provide excellent aircrew coordination by asking if I felt OK. Later, he told me I had said, out of frustration, things I wouldn't normally say. That was his cue to ask how I was feeling. Best noticed right away that I was probably suffering from hypoxia and took the controls and we descended from high altitude. Soon after, I began feeling much better and realized I felt like I had been in a fog. I had not realized I became hypoxic.



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The lesson learned for me was that hypoxia can set in quickly, especially if you are not accustomed to flying at higher altitudes. Water intake is critical at higher altitudes. Drinking the same amount of water as when I'm at home at 1,000 feet is simply not enough. Also, aircrew coordination becomes crucial, and a constant verbal feedback from crewmembers may give warning signs of possible hypoxia.

The hypobaric chamber is busy. The USASAM and the U.S. Army Aviation Research Laboratory at Fort Rucker, Ala., are continuously training classes and conducting experiments to improve equipment and processes to support flight safety. However, all aviators in flight training should be required to experience being hypoxic in a controlled environment. By providing this training to new aviators and using a good risk management process, hypoxic situations that could contribute to accidents may be easier to recognize.



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## SCHOOL CROSSING

JOSEPH FENTRESS

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My dad was a dedicated Soldier for 31 years. While many would think being an Army chaplain is a piece-of-cake MOS, I witnessed firsthand how his Soldiers' and their families' pain weighed on him. Throughout those years, I saw him cry only a couple of times. One of those times was when he thought I, his youngest son, was dead.

It was the morning of my first day of second grade at an elementary school outside of Fort Bragg, N.C. I remember not being able to find my cool Spider-Man jacket and my mom forcing me to wear an old hooded wool coat due to the chill in the morning air. With three young children to get ready for school every morning, my mom was not one to argue with, so I didn't protest too much. Once we were ready to go, my dad, in his dress greens, loaded us into the back seat of the car. My brother sat behind the driver, my sister in the middle and I was behind the passenger seat. We were all excited to start our school day.

When we arrived at the school, my dad pulled over to the side of the road. The school was across the two-lane street that we had crossed what seemed like hundreds of times before. In my excitement, though, I jumped out, ran around the back of the car and then into the street toward the school.

And then I woke up.

I remember being confused and scared by how awkwardly my dad was sitting in the middle of the street while holding me. He was crying and screaming for an ambulance. It's a sound no child ever wants to hear from one of his parents. I also remember wondering why my feet were cold. When I looked at my feet, my shoes were gone, and I asked my dad what had happened to them.

By now, a crowd had formed and I was getting embarrassed. Against my dad's pleading, I wiggled out of his grip and fought my way to a sitting position. As I looked for my brother and sister, I noticed a woman in the crowd who was crying more hysterically than my father. I instantly realized she must have been the person who hit me. By the time the ambulance arrived, I was standing and telling my dad I was fine. I still wanted to go to school, but instead, I was rushed to the hospital where several other chaplains arrived and lovingly put some of my dad's pain onto their shoulders.

I later found out the woman who hit me was a mother much like my own, just taking her child to school. It was determined she was following all traffic laws and not speeding. When I was hit, I was thrown about 10 feet in the air, cartwheeling so powerfully that my shoes were thrown more than 30 feet down the road. Fortunately, I landed feet first, and that big, ugly wool hood protected my head when it struck the street. (Thanks, mom!)

The safety lessons I learned that day revolve entirely around risk management, which my family still uses on a daily basis. Child safety locks on your vehicles aren't just there to ensure your children don't open a door in a moving vehicle; they also enable responsible adults to keep their children in the vehicle until it is safe to exit under their supervision. Also, the importance of teaching children to use crosswalks and always look both ways is a safety lesson that not only needs to be emphasized throughout their childhood, but also needs to be taught through a parent's example.

As a safety specialist, I know safety doesn't start at work and end when I get home. I consider myself the commanding general of my own little household post and hold myself accountable for the risk management tasks of not only keeping my children safe, but to also acknowledge risks when other children may be present. When in a school zone, consider the risk assessment matrix. One should not only explore the probability of an accident, but more importantly, the severity of an accident. A catastrophic accident will not only take you out of the mission, but could result in one of our future Soldiers from ever having the chance to serve.

I will always regret putting my dad through that experience. Even more, I feel bad about putting that poor woman through an ordeal that she most likely won't ever forget. After I returned from the hospital, my parents made me call her to apologize and tell her I was all right. While she could barely speak through her sobbing, she did let me know how thankful she was that I was OK. I am thankful, too, because I am here to serve my country today.



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## SCHOOL BUS SAFETY

### NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

For 23 million students nationwide, the school day begins and ends with a trip on a bus. The greatest risk is not riding the bus, but approaching or leaving it. Before children go back to school, or start for the first time, it's essential that they and their parents know traffic safety rules.

#### Drivers

- When backing out of a driveway or leaving a garage, watch out for children walking or bicycling to school.
- When driving in neighborhoods within school zones, watch out for young people who may be thinking about getting to school, but may not be thinking of getting there safely.
- Slow down. Watch for children walking in the street, especially if there are no sidewalks in the neighborhood. Also, watch for children playing and congregating near bus stops.
- Be alert. Children arriving late for the bus may dart into the street without looking for traffic.
- Learn and obey the school bus laws in your state. Learn the flashing signal light system that school bus drivers use to alert motorists of pending actions:
- Yellow flashing lights indicate the bus is preparing to stop to load or unload children. Motorists should slow down and prepare to stop their vehicles.
- Red flashing lights and extended stop arms indicate the bus has stopped and children are getting on or off. Motorists must stop their cars and wait until the red lights stop flashing, the extended stop sign is withdrawn and the bus begins moving before they can start driving again.

#### Children

- Get to the bus stop at least five minutes before the bus is scheduled to arrive.
- When the bus approaches, stand at least three giant steps (six feet) away from the curb, and line up away from the street.
- Wait until the bus stops, the door opens and the driver says that it's OK to board before stepping onto the bus.
- If you have to cross the street in front of the bus, walk on the sidewalk or along the side of the road to a point at least five giant steps (10 feet) ahead of the bus before you cross. Be sure that the bus driver can see you, and you can see the bus driver.
- Use the handrails to avoid falls. When exiting the bus, be careful that clothing with drawstrings and book bags with straps don't get caught in the handrails or doors.
- Never walk behind the bus.
- Walk at least three giant steps away from the side of the bus.
- If you drop something near the bus, tell the driver. Never try to pick it up because the driver may not be able to see you.

#### Parents

- Teach children to follow these commonsense practices to make school bus transportation safer.

*Note: If a child walks or bikes to school, parents should select the safest route(s) and accompany the child several times to ensure he or she can reach school and home safely.*



## DROWNING DOESN'T LOOK LIKE DROWNING

RETIRED CHIEF WARRANT OFFICER 2 MARIO VITTONÉ  
Norfolk, Va.

The new captain jumped from the deck, fully dressed, and sprinted through the water. A former lifeguard, he kept his eyes on his victim as he headed straight for the couple swimming between their anchored Sportfisher and the shore. "I think he thinks you're drowning," the husband said to his wife. They were splashing each other and she had screamed, but now they were just standing on the sand bar in neck-deep water. "We're fine, what is he doing?" she asked, a little annoyed. "We're fine!" the husband yelled, waving him off, but the captain kept swimming hard. "Move!" the captain barked as he hurried past the stunned owners. Directly behind them, not 10 feet away, their 9-year-old daughter was drowning. Safely above the surface in the arms of the captain, she burst into tears, "Daddy!"

How did this captain know — from 50 feet away — what the father couldn't recognize from just 10? Drowning is not the violent, splashing call for help most people expect. The captain was trained by experts to recognize drowning and had years of experience. The father, on the other hand, learned what drowning looks like by watching television. If you spend time on or near the water (hint, that's all of us) then you should make sure you and your crew know what to look for when people enter the water. Until she cried a tearful, "Daddy," the girl hadn't made a sound.

As a former Coast Guard rescue swimmer, I wasn't surprised at all by this story. Drowning is almost always a deceptively quiet event. The waving, splashing and yelling that dramatic conditioning (read: television) prepares us to look for is rarely seen in real life.

The Instinctive Drowning Response — named by Francesco A. Pia, Ph.D. — is what people do to avoid actual or perceived suffocation in the water. And it does not look like most people would expect. There is very little splashing, no waving and no yelling or calls for help of any kind. To get an idea of just how quiet and undramatic from the surface drowning can be, consider this: It is the No. 2 cause of accidental death in children ages 15 and under (just behind vehicle accidents). What's more, of the approximately 750 children who will drown next year, about 375 of them will do so within 25 yards of a parent or other adult. In some of those drownings, the adult will actually watch them do it, having no idea it was happening. Drowning does not look like drowning.

Pia, in an article in the fall 2006 issue of the Coast Guard's On Scene magazine, described the Instinctive Drowning Response like this:

1. Except in rare circumstances, drowning people are physiologically unable to call out for help. The respiratory system was designed for breathing. Speech is the secondary or overlaid function. Breathing must be fulfilled before speech occurs.
2. Drowning people's mouths alternately sink below and reappear above the surface of the water. The mouths of drowning people are not above the surface of the water long enough for them to exhale, inhale and call out for help. When drowning people's mouths are above the surface, they exhale and inhale quickly as their mouths start to sink below the surface of the water.
3. Drowning people cannot wave for help. Nature instinctively forces them to extend their arms laterally and press down on the water's surface. Pressing down on the surface of the water permits drowning people to leverage their bodies so they can lift their mouths out of the water to breathe.
4. Throughout the Instinctive Drowning Response, drowning people cannot voluntarily control their arm movements. Physiologically, drowning people who are struggling on the surface of the water cannot stop drowning and perform voluntary movements such as waving for help, moving toward a rescuer or reaching out for a piece of rescue equipment.
5. From beginning to end of the Instinctive Drowning Response, people's bodies remain upright in the water with no evidence of a supporting kick. Unless rescued by a trained lifeguard, these drowning people can only struggle on the surface of the water for 20 to 60 seconds before submersion occurs.



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However, this doesn't mean that a person who is yelling for help and thrashing isn't in real trouble. They are experiencing aquatic distress. Not always present before the Instinctive Drowning Response, aquatic distress doesn't last long. But unlike true drowning, these victims can still assist in their own rescue by grabbing lifelines, throw rings, etc.

Look for these other signs of drowning when persons are in the water:

- Head low in the water, mouth at water level
- Head tilted back with mouth open
- Eyes glassy and empty, unable to focus
- Eyes closed
- Hair over forehead or eyes
- Not using legs, vertical
- Hyperventilating or gasping
- Trying to swim in a particular direction but not making headway
- Trying to roll over on their back
- Appear to be climbing an invisible ladder

So if a crewmember falls overboard and everything looks OK, don't be too sure. Sometimes the most common indication that someone is drowning is that they don't look like they're drowning. They may just look like they are treading water and looking up at the deck. One way to be sure is to ask them, "Are you all right?" If they can answer at all, they are probably OK. If they return a blank stare, you may have less than 30 seconds to get to them to safety. And parents, children playing in the water make noise. When they get quiet, you need to get to them and find out why.

*Editor's note: Mario Vittone retired from the U.S. Coast Guard after 22 years in maritime operations. He now directs the maritime division at VLinc Corporation.*



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## FOLLOW THE CHECKLISTS

CHIEF WARRANT OFFICER 4 ROBERT JUSTISON  
Delaware Army National Guard  
New Castle, Del.

In 2004, I was a member of Company B, 1st Battalion, 150th Aviation Regiment, Delaware Army National Guard, and my unit was mobilized in support of Operation Iraqi Freedom III. We were a UH-60 aviation company assigned to provide troop and VIP transport missions in Kuwait and Iraq. This was our first combat deployment.

While at our mobilization station, our aircraft were upgraded and modified. We were flying UH-60A/L helicopters, and the modifications required a lot of new wiring and the replacement of old wiring. The upgrades were done by more than one contractor and all of our eight aircraft were modified prior to our arrival in Kuwait. All company aircraft were flown for training and then to the port and loaded onto a ship for the trip.

After arriving in Kuwait, I was assigned to fly a routine VIP mission. Our crew was to pick up the division commander and bring him to our base. The total flight time was about 30 minutes. I was the pilot in command, sitting in the right seat, and the other pilot with me was an experienced aviator.

The crew and I arrived at the aircraft about an hour and a half prior to liftoff to complete our preflight and configure the aircraft for the mission. The preflight revealed no deficiencies, and we entered into the aircraft and began the checklist. The aircraft auxiliary power unit was started to provide AC electrical power to run aircraft systems on the ground before starting the two main engines.

After performing the checklist, it was time to complete the flight controls check. This is done before the first flight of the day to test both the hydraulic systems and the helicopter flight controls and is normally accomplished by the pilot in the right seat. One part of the check is to move the cyclic control stick through its full range of motion. The operator's manual states there should be no binding or restrictions during this test.

While moving the cyclic control, I noticed a slight restriction immediately followed by bright sparks and black smoke coming from the cabin ceiling between the pilots' seats. We immediately shut down the APU, turned off the battery, exited the aircraft and used our company spare aircraft to fly the mission.

Fortunately, nobody was injured, but there was damage to the aircraft. The sparks and smoke were due to a wiring bundle being cut from one of the aircraft control tubes. The heat generated was enough to arc-weld the wire retaining clip to the control tube. Most, if not all, of the electrical relays in the aircraft were blown, and the aircraft was out of commission for an extended period of time before being returned to service.

This incident could have had serious and/or catastrophic results if it happened in flight. It is very important to use and follow all checklists because they and their associated steps are there to protect both personnel and equipment.



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## LAW OF THE LAND

ERIC CLARK

There are pros and cons to riding a motorcycle in a foreign country. First, though, riders must be familiar with the local laws of the host nation. There are several countries where there are no laws regarding the operation of a motorcycle, while others have written laws that are seldom enforced.

In Japan, for example, motorcyclists are permitted to ride between cars. This very dangerous practice could seriously injure or kill a rider if a driver decides to suddenly change lanes or open the vehicle door at a stop light. While stationed in Okinawa for several years, I saw firsthand just how differently the government enforces driving laws compared to the United States when I was involved in a motorcycle accident. Here's my story.

I'd left Kadena Air Base about 4 p.m. and was on my way home. As I neared an intersection about a half mile from Camp Foster, I noticed a vehicle approaching from the opposite direction. I made visual contact with the driver and proceeded into the intersection since I had the right of way. Without pause, the driver then turned right into my path of travel.

I had no time to apply the brakes, and my motorcycle struck the vehicle on the front left fender. The impact sent me airborne, and I landed on the hood of the vehicle. My momentum then carried me about another 20 feet. I landed hard on my right shoulder and finally came to rest on the other side of the vehicle. My motorcycle was lying on its side, dripping oil.

When I stood up, I realized I could not move my right arm. An ambulance transported me to U.S. Naval Hospital Okinawa, where X-rays determined my right shoulder was dislocated. The doctor gave me a large dose of painkillers before resetting my shoulder. They released me later that evening and I was placed in a limited duty status. I had to attend physical therapy due to the severity of the damage to my shoulder.

Fortunately, I was wearing all of the proper personal protective equipment required by the Status of Forces Agreement, which likely lessened the severity of my injuries. Unfortunately, my \$400 Shoei helmet was ruined, as was my leather jacket. The estimate to repair my motorcycle was just less than \$3,000. Amazingly, the driver's insurance company, as well as my own, settled and concluded the accident was my fault. The Japanese government essentially said that if I hadn't been in the country, the accident wouldn't have occurred.

I've been an avid motorcyclist for nearly 30 years. Despite this accident, I still own and ride motorcycles, but I learned a very valuable lesson that day. Before riding in another foreign country, I will always make it a priority to become familiar with all the local laws regarding motorcycles first.



ARMY STRONG.



## KEEPING RISK OUTSIDE THE WIRE

PATRICK W. FLEMING  
Savannah, Ga.

The job of an aviation safety officer is practically identical to that of “007” — filled with intrigue, danger and martinis (shaken, not stirred). Well, maybe not so much intrigue or martinis, but definitely danger, as in protecting our service members from it. At times, the challenge can be quantifying the threat and then communicating its existence effectively.

When talking about the inherent dangers of containerized housing units, it’s hard for some Soldiers and civilians to accept that these can be both our refuge and downfall if not designed and maintained to standard. As an expeditionary force, the use of containerized housing has increased dramatically. In efforts to identify and install proper force protection measures, it’s important to know there are two basic models. The first, which is typically used for housing, has corrugated (ridged) one-sixteenths-inch Corten steel sides, is built in accordance with International Standards Organization 1496 and 668 to bear up to 65,980 pounds and can be stacked up to nine high. The second, used primarily for storage, has flat sides and is typically made of aluminum. Force protection measures must be postured accordingly when using various forms of these containers.

### Project Management

As we move to occupy sites in the future, it becomes imperative we look forward and anticipate growth as small camps become larger and grow into bases. The oversight of life support area layout during the initial phase of construction is of particular importance in mitigating risks to container structures. One of the main considerations is generator (and supporting petroleum, oil and lubricants storage) placement. The key consideration is to prevent obstruction to the single means of egress from these units. That obstruction can come in the form of a fire, deflagration reaction or spill. The absence of functional windows in many of these designs means there is only one way out of the steel boxes. Therefore, it is imperative the proper means of egress is preserved. Additionally, the telltale black residue on the side of CHUs near generators can be an indicator Soldiers and civilians inside are potentially being exposed to carbon monoxide, nitrogen dioxide and ozone.

### Facility Inspections

When constructed properly, CHUs endure the harshest conditions. Yet, their indestructible appearance can lead to complacency amongst the housing occupants and those who must inspect the LSAs. It’s important to mention that buildings should be certified by a qualified master electrician. This will require opening electrical panels to ensure the bonding jumper is installed correctly and to test of the grounding rods. However, not all safety officers are necessarily qualified to conduct those inspections.

Between 2004 and February 2013, there were two Class A accidents in which Soldiers died in the shower because their immediate area became energized. Additionally, there was a similar Class C accident in 2008 and two in 2009 that were the result of faulty wiring in air-conditioning units. Circuit breakers that consistently “trip,” ground fault circuit interrupter outlets that do not test correctly and extension cords that have been used as permanent wiring are all key indicators of areas that are at higher risk of having an electrical accident. Regular inspections will help remedy these and other issues that occur as intelligent, crafty people try to make work-arounds for inadequate facilities.

### Occupancy Levels

As we attempt to reduce the footprint in our deployed locations and increase the Soldiers in others, it’s important to remember the Department of the Army Pamphlet 40-11 and U.S. Army Center for Health Promotion and Preventative Medicine Technical Guide 314 guidance for living space is clear. Seventy-two square feet is required per Soldier in any living area. The 20-foot shipping container, which is the standard CHU configuration, provides 148 square feet of usable living space, which exceeds the requirement for two people (bunked or not). Increasing occupancy above this number will increase the probability of disease transmission as well as egress time in the event of an emergency or fire.

Through proper project management, facility inspections and planning of occupant loads, we can use these facilities to their maximum potential safely. Let’s keep the risk to the force where it belongs — outside the wire.



ARMY STRONG.



## GRACE UNDER PRESSURE

CHIEF WARRANT OFFICER 2 BARON BATES

It was the night of Sept. 17, 2006, when my pilot in command and I made a precautionary landing in Khan Bani Saad, Iraq.

I arrived in country fresh out of flight school and this was my 12th mission. I was very green at readiness level 2 and still having to fly with an instructor pilot while learning the mission as fast as possible. This flight was a night mission in direct support of a security force patrolling Khan Bani Saad, a small town just north of Baghdad. Khan Bani Saad had flared up in recent weeks with heavy fighting and violence.

Everything was going as planned the first couple of hours of the mission. It was a quite night. We were going to return to base in about 30 minutes when our AH-64A began to have violent, uncommanded control inputs. My PC performed the emergency procedure as published, releasing the digital automatic stabilization equipment. However, the violent control inputs did not stop. Without hesitation, my PC decided to land the aircraft in the first suitable landing area, a big field just below us. The only problem was it was in the middle of Khan Bani Saad.

At this point, my heart was racing. Here I was, a new warrant officer, about to make a precautionary landing outside the wire and I thought this was it. I just knew that as soon as we touched down, the bad guys would come rushing us. My PC was as cool as a cucumber the whole time; me, not so much. When he got the aircraft on the ground, he said, "What I want you to do is take your M4 and lock and load." Little did he know I was already there. While he was remaining calm and landing the aircraft, I was grabbing my M4 and getting ready for battle. I was fired up and ready for whatever. I said, "I've got the left side, you take the right!"

We were in constant communication with our wingman, and they were in communication with the security force on the ground. Luckily, we landed pretty close to the ground unit on patrol. Our wingman immediately began talking them onto our location. They were on their way, but in the meantime, we were by ourselves on the ground, in a populated and hot area outside the wire. I was on pins and needles; my PC, still super cool. At least we had our wingman watching us from above.

What seemed like an eternity was probably about 15 minutes when the ground forces arrived and set up a perimeter. We were still in the aircraft when they arrived. I wanted to stay on the 30 mm just in case. Two ground guys walked up to the aircraft as if nothing was wrong. They were talking and smoking as if it was OK to be on the ground outside the wire. I quickly told them to keep it down. They thought it was funny. I couldn't understand how they could be so calm because for an aviator like me, the only time I wanted to be on the ground was inside the wire.

We finally got out of the aircraft to wait on the downed aircraft recovery team. The two ground guys and my PC were talking and hanging out while I was pulling security. I still had my helmet and night vision goggles on, waiting for enemy. They thought I was stupid, but I didn't care. I finally settled down after a couple hours. That's right, hours. It took the DART team four hours to come and get us. But that is a story for another time.

Thankfully, we made it home safely that night. At first, I wasn't so sure. Thanks goes to my outstanding PC for staying cool under pressure and making good decisions as well as our wingman for staying with us to coordinate relief on station while they went to refuel and then returning to cover us until we were picked up. All aviators appreciate ground units who arrive quickly to provide aid. My hat goes off to all the Soldiers who served or serve on the ground in Iraq and Afghanistan.



ARMY STRONG.





## HEAD ON

1ST LT. DEAN GLOSSOP  
208th Regional Support Group  
Fort Jackson, S.C.

As Soldiers, we have all completed the online Army Accident Avoidance Course many times. And at the conclusion of each battle assembly, our leadership reminds us to drive safely. While these are both worthy efforts, the reality is human beings have a limited ability to maintain a heightened state of awareness. Nobody can stay fully alert for the entirety of an eight-hour drive. Therefore, it is important to recognize what driving situations require extra attention. My accident story, which resulted in the totaling of my car, is illustrative of such situations.

It was just before midnight and I was starting my nearly 450-mile drive from Orlando, Fla., to Fort Jackson, S.C. My plan was to arrive just in time for first formation, so I didn't have much time to spare. As I drove north on I-95, I noticed a large number of deer feeding close to the roadside. This forced me to stay extra alert and drive slower than I would have otherwise.

When I entered the Jacksonville area about 2:30 a.m., I was able to somewhat relax since the threat of hitting a deer in such an urban area became less likely. At the time of my trip, my parents were in Hawaii, so I decided to break up the monotony of the drive by calling them using my hands-free system. During the call, I entered an area just north of downtown Jacksonville where the road has many curves.

As I traversed a long left-hand curve, I suddenly saw the headlights of a car coming toward me on my side of the interstate. Without even making a cognitive decision, I jerked the wheel hard to the left. This allowed me to avoid the oncoming car, but I knew I needed to get my vehicle headed back to the right ASAP. Just as I was turning the wheel back to the right, I slammed into a concrete median wall at 55 to 60 mph.

The airbags deployed, and when the car came to rest, I found myself without my glasses and surrounded by what looked like smoke but didn't smell like a fire. Fortunately, it was just the remains of the airbag propellant, but at the time, I wasn't certain that my car wasn't about to burst into flames. I quickly grabbed my spare glasses, which were in the door map pocket, and literally leaped from small opening in the door. As I evaluated my condition, I was amazed to find that I had only suffered a small scratch on my thumb. Otherwise, I seemed to be unharmed.

When I looked across the three-lane road, I saw another driver had pulled over to check on me. He asked if I was OK, and I replied that I was fine. I then asked if he'd seen the car traveling the wrong direction on the interstate. The other driver said he did see the wrong-way vehicle, but this indicates how incredibly fast the entire event took place. Until he confirmed the existence of the other vehicle, I wasn't even certain that what I thought had happened really occurred.

I later calculated, based on sight angles and likely speeds, that I had about 2.5 seconds to react once I first spotted the oncoming car. In reality, it's unlikely that I was looking as far ahead of the curve as I could have. Why? Well, because on an interstate highway, there is never supposed to be any oncoming traffic. That's why they are the safest roads in the country.

As I thought about the accident, I realized it would have been possible for me to have slammed right into the other car without ever seeing it. For example, had I chosen to take a drink of my coffee at that moment, I might not have even seen the car in time to make a maneuver. Even if I had seen it, would I have been able to make a controlled response with the coffee in my hand?

The lesson learned is that negotiating a curve, even a gradual curve on an interstate highway, is a situation that demands full alertness. There are many other situations, such as heavy traffic, bad weather, hills and passing tractor-trailers, that also demand a heightened level of attention. Again, since it is just not possible to maintain that heightened alertness for eight continuous hours, it is critical to maintain situational awareness in order to recognize when the situation requires that superior effort and attention.



ARMY STRONG.



## 'BEAR' OF A DILEMMA

SGT. 1ST CLASS RONALD R. WEISS II

Headquarters and Headquarters Company, 1st Battalion, 52nd Aviation Regiment  
16th Combat Aviation Brigade  
Fort Wainwright, Alaska

A few years ago, my son and I went on an overnight hiking trip with his Boy Scout troop. We met everyone at the old depot near the News-Minor newspaper office in Fairbanks, Alaska. The plan was for the boys and chaperones to hike 16 miles over two days on the Granite Tors Trail with 30-pound backpacks. Eight miles up the trail, sleep and then eight miles back. Great in theory, but after we set out, things didn't turn out quite as planned.

We headed to the starting point of our trail — at mile marker 39.5 on Chena Hot Springs Road. As we pulled into the trailhead, we made ready our gear. The scoutmaster then called everyone into a group and started talking about bear safety. My son and I looked at each other. We had the same thought. "Who talks about bear safety? You mean we might see one in the wild?" Being new to Alaska, we were naïve about the local wildlife.

The scoutmaster told us to stay in a group because the bigger we made ourselves, the less likely a bear would attack with us. He also discussed the use of the bear spray a few of the adults were carrying. He showed the boys where each one was located on the adults' backpacks.

The next thing I knew, the scoutmaster told us to go upwind. We obliged, and he then sprayed some of the bear spray to demonstrate how it works. The smell that permeated from that can was worse than the gas chamber in basic training. Even though we were upwind, Murphy's law took over. The wind changed directions and we scattered while coughing and hacking. The only highlight from that lesson was we were pretty darn sure bear spray would work if needed.

The scoutmaster's words about bears put me on high alert, and I wondered what would happen if we actually encountered one. I put my apprehension in the back of my mind as I got ready for the hike. Once done with the safety brief, we put on our packs and off we went. Eight hours later, we reached our camping spot. The good news was we hadn't seen any bears.

Early the next morning, we ate breakfast and prepared for our trek back down the mountain. Everyone was in high spirits; we were going downhill and still no bears! That was about to change.

About 500 meters from our campsite, my son and I heard what we thought was other campers. Unfortunately, that wasn't the case. It was a bear! I'm not talking about a 300-pound black bear, which would have been bad enough. This was a huge grizzly, and it was heading our way. The adults sprang into action and put the boys in the middle to make us look bigger and hopefully intimidate the grizzly. Thankfully, curiosity didn't get the better of the bear and it turned around and left.

The bear training the scoutmaster gave us worked. He pulled everyone together to discuss what had happened. Silently, I reflected on what had just occurred, thankful for the valuable training the scoutmaster had given us at the start of our trip. I'm glad everyone paid attention and took the training seriously. Things could've turned out differently if they hadn't.

In the Army, we train and train until we can do our tasks in our sleep. Then, when faced with a situation, we handle it without thinking. Safety, training and awareness are key components in preventing accidents. Stay alert, stay alive!

## WILDLIFE SAFETY TIPS

### Bears

Symbolic of the Alaska wilderness, both grizzly and black bears may be encountered in the backcountry. To keep these magnificent creatures wild and enhance your personal safety, keep the following in mind:

- Make noise while hiking to alert bears of your presence.
- Use bear-resistant food containers and store them 100 yards from cooking areas and tent sites.



- Be alert for bears and alter your activities to avoid them.
- Never run from a bear.
- Pepper spray can be carried as an added precaution. However, it is useful only as a last resort in the event of an emergency and should not be viewed as substitute for proper backcountry behavior.

## Other Wildlife

Alaska is also home to sheep, caribou, wolves, foxes, bears, moose, eagles, ptarmigan and other wildlife you are very likely to encounter in the backcountry. Please keep Alaska's animals wild by following these guidelines when encountering wildlife:

- Do not feed or allow wildlife to obtain human foods.
- Maintain a minimum 300-yard distance from bears.
- Do not approach or follow wildlife. Maintain a minimum 25-yard distance from all other animals, dens and nests.
- If your presence alters an animal's behavior, you are too close.

Source: National Park Service



ARMY STRONG.



## IT'S YOUR RUNWAY

CHIEF WARRANT OFFICER 3 JUDSON FARRER

There I was, looking down an 11,000-foot runway. As a freshly minted private pilot with 60 hours under my belt, I was working on my instrument rating. I had landed a job as a flight coordinator at a flight school at Phoenix Sky Harbor International Airport in Arizona. My new job gave me a modest discount toward my instrument rating, a chance to be around pilots all day and some free flight time.

The school had sent some older aircraft to Falcon Field, an airport in nearby Mesa, Ariz., for the interiors to be refurbished. When my boss asked if I could fly one of them back from Falcon Field, I jumped at the opportunity to get some free flight time. It was just a quick 10-minute hop to Falcon, but the return trip would take longer because of the volume of inbound airline traffic.

Up to this point, I had accumulated 20 hours toward my instrument rating flying out of Sky Harbor, which at the time was one of the busiest international airports in the nation. It was always a daunting task to get in and out because much of the time you would be the only small aircraft mixed in with airliners. The line for takeoff on a normal day consisted of 10-15 aircraft with large passenger jets in front of and behind you. Talking on the radio and navigating the labyrinth of taxiway at Sky Harbor intimidated all new pilots, especially this one.

The two of us took off from Sky Harbor in a Cessna 172 to pick up our aircraft. As expected, the flight to Falcon Field was quick and uneventful. For me, though, I was still reveling in the idea that I was getting paid to fly. We finished the paperwork and got the keys to the newly refurbished 172. My counterpart took off first and I followed a few minutes later. This would be an easy flight, I thought, just a right turn out and then a straight-in landing to runway 26R (this was when Sky Harbor had only two runways).

Following takeoff, I contacted approach for clearance into the Class B airspace and was immediately handed off to Sky Harbor tower. Traffic in the pattern meant I was following a 727 on a five-mile final with a 737 behind me. I looked to my left and saw another 737 on final to 26L with traffic in line behind it.

The plan was to land long and get off the runway at an exit close to my fixed base operations. As I was running my before-landing checks, tower called me to slow down by 10 knots on my approach to give more room for the now-landing 727. I was already in landing configuration, so I began "S" turns to bleed off more airspeed. Just as I began my first turn, tower called me back to now speed up for the 737 behind me. When the 727 exited the runway, tower called again to clear me to land. I increased the throttle and nosed the aircraft down, staying aware of my airspeed and knowing I would need to bleed it off to land.

When I crossed the numbers and began to flare the aircraft and touchdown, the tower called me back.

"Cessna 1234, you need to exit immediately at B9, there is a 737 behind on short final."

Looking down the runway as I pulled the throttle all the way back, I saw exit B9 coming up quickly. As my tires touched down, I began my left turn at B9 with my feet firmly planted on the brakes at the same time. I could feel my body shift with the speed of the turn. When I applied more pressure on the brakes, it happened. The brakes locked up and the right tire blew out. Not yet off the runway, tower began calling me. The next thing I know, they called the 737 to go around. Tower still was trying to get me to move off the runway, but the Cessna wouldn't budge.

At my request, tower called my FBO for a tow and I had to wait in my aircraft and watch airliners taxi by with the pilots giving me that look — "You rookie!" I caused two airliners to go-around, shut down the north runway, causing numerous passenger delays, and cost the airlines thousands of dollars in gas, all because of a simple mistake.

Lesson learned: I was cleared to land and it was my runway, but if I could not make the exit, I should have called and taken the next one. I still remember the airline pilots sticking their heads out the cockpit windows and glaring at me as they taxied by.



ARMY STRONG.



## THE VACATION THAT ALMOST WENT SOUTH

SGT. 1ST CLASS CARLOS I. ALVELO

56th Multifunctional Medical Battalion

Joint Base Lewis-McChord, Wash.

As the transition to my next duty assignment at Joint Base Lewis-McChord, Wash., neared, I decided to take the family on a vacation to Orlando, Fla. We all had busy schedules at home and were excited to finally take a break. So, we packed our bags and headed down I-95 South to Walt Disney World.

I'd planned to start the 15-hour trip from Maryland to Orlando about 11 p.m. so I could avoid traffic and let the kids sleep. My wife and I agreed that I would take the first leg of the trip so she could sleep and then we'd switch so I could get some rest. As we left our home, we said a small prayer that the Lord would keep us safe as we drove.

About three hours into the trip, I pulled off I-95 somewhere in lower Virginia and stopped at a little gas station so I could use the restroom and refuel. I still felt good and alert as we continued our journey, thinking of the good time we were about to enjoy as a family. As the miles and time passed, though, I began to get a little tired. I tried to stay awake by using all the usual tricks like opening the driver's window, drinking coffee and energy drinks and turning up the radio. I figured that would help me stay focused.

At one point, my wife asked if I was tired, but I told her I was fine — although I was really feeling the effects of driving for the past seven hours. After a few more fuel and restroom breaks, I stubbornly stayed behind the wheel and ignored the warning signs that I should transfer driving duties to my wife. Somewhere in North Carolina, though, I got one more warning that it was time to switch. In fact, it almost turned this trip of happiness and joy into pain and agony.

The only thing I remember is the rumble strips on the road making a loud burring sound as I edged off the side. The noise woke me up, and I jerked the steering wheel back to the left. At that moment, my wife and kids woke up and asked what happened. I had fallen asleep while driving and put my family, as well as anyone else on the road, in danger. Divine intervention must have woken me at the right time because I was heading straight off the road.

We always promote safety in our units before the weekends, especially when Soldiers will be traveling long distances. But I completely did the opposite at that moment. I ignored the signs that I needed to switch drivers so I could rest. Immediately after that scary moment and pushing my heart back into place, my wife fired me from driving duty and took over.

We must continue to encourage our Soldiers and family members to be safe regardless the activity. Safety should never be taken lightly. We eventually went on to have a great time at Disney World, but one careless moment nearly caused this vacation to go south.



ARMY STRONG.



## POWERED PARACHUTE PROBLEMS

CHIEF WARRANT OFFICER 3 TODD WOLFE

1st Battalion 212th Aviation Regiment

Fort Rucker, Ala.

While home on R&R leave from Afghanistan, I ran into my old friend, Reed, who I hadn't seen in years. Our conversation turned toward aviation, and he told me he recently bought a powered parachute. Since I had never seen one in person, I suggested we head over to his place and check it out.

If you are unfamiliar with a powered parachute, it's basically a go-kart with a big fan on the back and a parachute overhead. Your feet work the parachute risers, so you simply push the pedals in the direction you want to turn. The throttle changes your altitude, and if the motor quits altogether, you simply float down to a hard landing. Sounds simple enough, right? If I can fly a multimillion-dollar Black Hawk, this thing should be no problem — or so I thought.

With a 10-minute briefing on the finer points of powered parachute piloting techniques, I found myself rumbling down the field behind Reed's house and launching skyward. This little craft was a pleasure to fly, and even though it was a little windy, I was having fun. I did a couple of patterns and then came in for a respectable landing. It was awesome! Reed came over and said, "Go ahead and take it out for a while."

I launched back off and headed toward my parents' house for the obligatory flyby. As I headed in that direction, I noticed my ground speed seemed a little fast, but I didn't think too much about it. After flying over my old neighborhood, I decided to continue on to Lake St. Clair to check out the boats. By now, the wind seemed a little gusty, but I figured this was normal for a lightweight, open-cockpit machine.

Lake St. Clair defines the border between the U.S. and Canada, just north of Detroit. As a popular boating destination, there are often big groups of watercraft rafted together. I spotted one of these groups on the Canadian side of the lake, so I headed over to have a look. With a direct tailwind, which seemed a little stronger than I remembered, I zipped across the water in no time.

Awaiting me was a flotilla of very cool looking boats loaded with people having a good time. Everyone was waving and I could see all the bathing suit-clad revelers enjoying the afternoon. After spending a little while observing, I decided it was getting windier and I should head back.

As I turned directly into the wind to make my way back across the lake, my groundspeed dropped to nearly zero. I was practically hovering, with a couple miles of water in front of me. During all my screwing around, I hadn't noticed the wind had continued to build. With a top speed of 20 mph, the powered parachute was unable to make any progress back across the lake and toward my friend's house.

As I sat there with the engine screaming and barely making any headway, it occurred to me that I had no idea how long a tank of gas would last me. So, with a great deal of shame, I headed back toward Canada to make a precautionary landing. A large field close to the shoreline was available, so I carefully set it down, turned off the engine and made the phone call I was dreading.

"Reed, I'm in Canada," I said. "I need you to come pick me up."

After a long while, Reed arrived with the trailer. We then loaded up the powered parachute and headed back. It took me a while to explain to the U.S. border agent how I found myself in Canada without ever clearing Canadian customs. Eventually, though, we made it back across the border.

Because I was having so much fun, I allowed the weather to sneak up on me. Although there were plenty of signs available, I didn't know enough about flying a powered parachute to recognize them. Once it became clear there was a problem, my ignorance of the machine's fuel endurance left me with few options.

If you are going to try out a new activity, it's important to take the time to learn as much about it as possible before you start. While you are still learning, be especially cautious of hazards and distractions. Until you build a foundation of experience, you may not have the skills and ability to recognize and correct a problem until it's too late.



ARMY STRONG.



## GOOD INTENTIONS DON'T GUARANTEE GOOD OUTCOMES

CHIEF WARRANT OFFICER 4 GREGORY GUY  
1-158 ARB  
AH64D IP/BN ASO

It was a sunny summer day at Fort Carson, Colo. I had been battle rostered for gunnery training with one of our newest staff officers who was undergoing pilot in command training. We conducted the preliminary preflight activities, including receiving our weather brief at base ops. The pressure altitude was in excess of 6,000 feet and the temps were in the mid-80s. The biggest difference from a weather perspective was that the winds were coming from the opposite direction compared to the day before. This would later prove to be significant with respect to a near mishap.

We tweaked the performance planning card numbers a bit from the previous day's calculations and headed out to preflight our AH-64D. The flight down to the forward arming and refueling point was uneventful. I noticed the winds were stronger out of the north than had been forecast and was glad we would be making our approach and landing at the FARP with a headwind component.

Because of ongoing range fires, the unit was conducting rocket engagements at one range and 30 mm and Hellfire engagements at another. We took on some fuel and received our allotment of rockets, completed the necessary aircraft checklists and prepared for departure.

The PC in training wanted to make the takeoff and flight to the range where we would be doing the rocket engagements. I briefed him on some of the common techniques for taking off in a heavy aircraft in dusty conditions. We departed and got ourselves established on the route to the range. I noticed that the winds had increased in strength even more so from our original departure from Butts Army Airfield, Colo. Our arrival plan was to land the aircraft at the designated aircraft holding area and wait for our turn in the chute to shoot the tables.

As we neared the landing zone, the backseater called for the before-landing check. We completed the check and a few moments later, the backseater started the approach. I noticed right off the bat that we were using a fair degree more power than usual, no doubt because of the tail wind condition. Also, I noticed that the expected dust cloud was building earlier than anticipated and that the transverse flow effect was more pronounced. I could see that this situation was rapidly getting less than ideal.

I called for a go-around, and this is where the real trouble began. Because of the nature of the terrain (it was falling away from us), I expected the backseater to do an airspeed over altitude go-around, which would have required a minimal application of power. Instead, he yanked in an armload of collective and attempted to do a go-around with a flight path that resembled a "V." The aircraft Nr immediately started to deteriorate and "Betty" announced it. Simultaneously, we started sinking toward terra firma. To make matters worse, the aircraft started to yaw. I announced, "I have the controls," and by this time, we were completely engulfed in the dust cloud that had been developing since our initial approach.

I noticed immediately that the right pedal was almost to the stop, which took me by surprise and added to the overall confusion of not being able to see the ground nor blue sky around us. I lowered the collective in an attempt to regain Nr and nudged the cyclic forward to get some airspeed. I got established on a flight path unseen due to all the dust, hoping that we could fly out of this without hitting the ground. It seemed like it took forever, but we gradually gained airspeed and the Nr slowly inched up with Betty still announcing low rotor. I managed to catch a glimpse of an area that was quasi VMC to my right front and maneuvered the aircraft in that direction.

We managed to get the engulfing dust cloud aft of the weapons wing and I realized that we were only a few feet above the ground. If it were not for the fact that the terrain was falling away with respect to our flight path, the aircraft would have struck the ground.

We managed to get the aircraft through ETL, got the rotor RPM in the normal range, and climbed away unscathed. We re-established our approach and this time landed with an aircraft not pointing downrange.



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Second time around, we did our approach and landing with an aircraft under control, minus a dust cloud obscuring our forward vision, and nobody's heart skipped a beat (or beats).

After the shutdown, I asked my guy why he attempted to do the go-around in the manner in which he did. He said that he only did a few in training and without much thought, they always tended to be more altitude over airspeed go-arounds with greater than takeoff power applications. I also queried him as to why he had the right pedal practically to the stop. His response was that it was necessary to keep the nose pointed in the general flight path during the initial part of the go-around. I realized that not only had we been in a partial settling with power condition, but also in a weather-cocked loss of tail rotor effectiveness state as well. I explained the irony that we probably had dodged an overtorque condition due to the fact that the aircraft was environmentally limited versus structurally limited in terms of max available power.

So, how could things have been better? For starters, given mountain weather forecasts and observations, it's always a good idea to pour over the data with extra detail and care. If the winds are forecast to be 10 knots sustained, expect them to be 20 knots instead. If they are calling for light mountain wave turbulence, expect moderate or greater turbulence instead.

Additionally, it's always a good idea to have very thorough crew briefs. Even taking into account the low-time-experience pilot, I assumed that an airspeed-over-altitude go-around was the obvious decision. It's generally not a good idea to assume much while conducting aviation operations.

Finally, sometimes we, as aviators, allow set procedures and protocol to lead us down paths where we would rather not go. One has to keep in the back of their mind that following an established procedure may not be prudent 100 percent of the time. Landing into the wind and subsequently making a pedal turn while accepting a certain level of brownout was the better decision the second time around.



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## ACCIDENT BRIEFS

### AVIATION

#### CH-47D

##### Class C

The aircraft experienced failure of the right rear wheel during post-landing taxi to parking.

#### UH-60L

##### Class C

The crew was initiating engine start following refuel when they identified a No. 2 engine TGT exceedance. The crew initiated restart and cool-down procedures to move aircraft to home station. Engine replacement was required.

#### C-12D

##### Class C

The left side of the aircraft's tail stabilator was damaged by a bird strike.

### GROUND

#### AMV

##### Class A

Two Soldiers were killed and two others injured when the HMMWV they were riding in overturned.

### PERSONNEL INJURY

##### Class A

A Department of the Army Civilian was killed while performing engine maintenance on an FMTV. The vehicle's cab was raised so he could access the engine. While working on it, the cab dropped, pinning the DAC to the vehicle.

A Soldier died after being shot in the head.

A Soldier drowned while swimming on vacation. A bystander saw the Soldier struggling in the ocean and called for help.

A Soldier drowned while crossing a canal during a security mission.

### DRIVING

#### PMV-4

##### Class A

A Soldier died when his vehicle struck an embankment, went airborne and rolled numerous times after contacting the ground.

#### PMV-2

##### Class A

A Soldier and his civilian female passenger were killed when he lost control of his motorcycle and left the roadway. Local authorities suspect speed as contributing factor. The Soldier had met the state and command licensing and training requirements and was wearing all PPE at the time of the accident.

A Soldier died when his motorcycle ran off the road in a curve. The motorcycle hit some railroad tracks, flipped into the air and struck the counterweight for the railroad crossing bar, sending the Soldier across the road and into the adjacent field. He was wearing all PPE.

A Soldier died when he struck a curb at a high rate of speed and was thrown from his bike, landing in a stream.



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# KNOWLEDGE

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

A Soldier was killed when he collided with another rider on an interstate ramp and was thrown off the overpass and down to the ground 30 feet below.

A Soldier was killed when he struck a vehicle while attempting to pass it, slid into oncoming traffic and was struck by another motorcycle. The Soldier was wearing a helmet.



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